

CS 165 Course Reflection

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Important Lessons

One of the most important things I've learned is that computers only do as they are told. You cannot assume that the program will understand what you mean so you must be very explicit. Understanding this has helped me write programs with much less bugs.

Another thing that I thought was important was learning the concepts, not memorizing syntax. Numerous times I had to look up how to initialize arrays, create pointers, passing variables to functions, etc, but I always knew how my program was suppose to flow logically.

One last topic that I thought was important was OOP. All the programs I've written before taking this course were small scripts in JS. Understanding OOP helped me understand how actual software might be written.

Confusing Topics

One topic that I found is confusing still is memory management. I often am confused on how I should allocate and deallocate memory, especially when I'm allocating memory in my class implementations. I would've liked more practice with that.

Another topic is sorting. I understand how basic sorting algorithms in the book work (bubble, selection) but it takes me a while to trace through what the algorithm is doing. I also would've liked an introduction to other sorting algorithms but they're easy to find online.

One last thing I'm not confident on is chapter 16 (polymorphism and virtual functions). I feel like I understand those concepts but in more complicated programs, I'm not confident I can follow the logic. I suspect I just need more practice on these concepts. I would've liked it if we had a final assignment that involved more of these concepts.

Learning Online

During this quarter, I learned that for online classes, you really have to discipline yourself. I sort of knew this coming in as I've tried numerous times to self-study using online resources to no avail. I like the structure that this degree program provides in that it's mostly self-study but you have actual consequences. I feel like this combination of self discipline and real deadlines works for me.

Improvement

I learned that it's much easier to knock out assignments early as you will always have time to go back and change things later if needed. Also, it's best to utilize all your resources. For this class, I found the book to be very clear so that's what I used the most but there were times where I needed help from online resources or help from my friends that were more experienced. Finally, I learned that it is ultimately up to you to learn and practice the material, you cannot rely on other people to explain everything to you.

Career

Taking this course has helped me solidify my belief that CS is the right career path for me. This sort of logical problem solving is very enjoyable for me and although the assignments in this course were not the most exciting, I learned a great deal of C++ and programming in general. I hope we will have more collaboration with other classmates in later courses to get a feel of what it's like to code in an actual work environment.